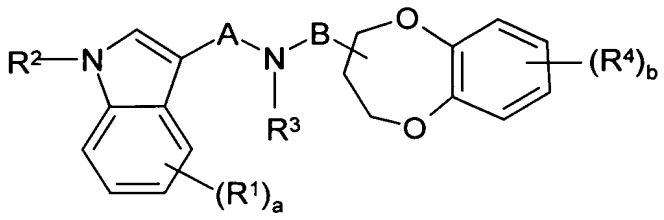
Patent Claims

1) Benzodioxepines of the formula I



I

in which

R^1, independently of one another, is selected from alkyl, $(CH_2)_mOD$, $(CH_2)_mCN$, $(CH_2)_mCOR^5$ or $(CH_2)_mCH_2R5$, where m=0 or 1,

R^2, R^3, independently of one another, is selected from H, alkyl having 1 to 5 C atoms,

R^4, independently of one another, is selected from alkyl having 1 to 5 C atoms, heteroalkyl having 1 to 5 C atoms, alkoxy having 1 to 5 C atoms, alkoxyalkyl having 2 to 5 C atoms, Hal, CN, COR^5 or OH,

R^5 stands for OD, NH_2, NHD or ND_2,

A stands for C_nH_{2n} where n= 2, 3, or 4,

B stands for C_pH_{2p} where p=0, 1, 2, 3 or 4,

D, independently of one another, is selected from H, alkyl having 1 to 5 C atoms, alkoxyalkyl having 2 to 5 C atoms, aryl or aralkyl

a, b stand for 0, 1 or 2 and

Hal stands for F, Cl, Br or I

and physiologically tolerated salts and solvates thereof.

2) Benzodioxepines of the formula I according to Claim 1, characterised in that the radicals R^2 and R^3 stand for H.

3) Benzodioxepines of the formula I according to Claim 1 or 2, characterised in that the radicals R^2 and R^3 stand for H and at least one radical R^1 stands for $(CH_2)_mCN$.

4) Benzodioxepines of the formula I according to Claim 1, 2 or 3, characterised in that a $(CH_2)_mCN$ is in the 5-position of the indole ring and a preferably stands for 1 and m preferably stands for 0.

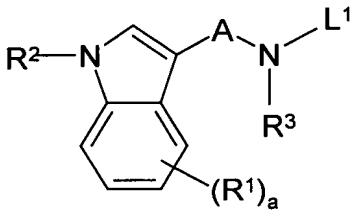
5) Benzodioxepines of the formula I according to one of the preceding claims, characterised in that A stands for C_nH_{2n} where n = 4 and B stands for C_pH_{2p} where p = 1 or 0.

6) Benzodioxepines of the formula I according to one of the preceding claims, characterised in that R^1 stands for $(CH_2)_mCN$ in the 5-position of the indole ring and a stands for 1 and m stands for 0, R^2 and R^3 stand for H, A stands for C_nH_{2n} where n = 4 and B stands for C_pH_{2p} where p = 1 or 0.

7) Benzodioxepines of the formula I according to one of the preceding claims selected from the group consisting of N-(3,4-dihydro-2H-1,5-benzodioxepin-3-yl)-4-(5-cyano-3-indolyl)-butylamine ,
3-{4-[7-methyl-3,4-dihydro-2H-1,5-benzodioxepin-3-ylamino]butyl}-indole-5-carbonitrile,
3-{4-(6-methyl-3,4-dihydro-2H-1,5-benzodioxepin-3-ylamino)butyl}-indole-5-carbonitrile,
3-[4-(6-methoxy-3,4-dihydro-2H-1,5-benzodioxepin-3-ylamino)butyl]-indole-5-carbonitrile and
3-[4-(3,4-dihydro-2H-1,5-benzodioxepin-3-yl)methylamino)butyl]-indole-5-carbonitrile.

8) Process for the preparation of benzodioxepines of the formula 1 according to one of Claims 1 to 7, characterised in that

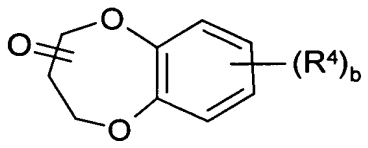
a) a compound of the formula II



II

in which L^1 denotes H or a metal ion and R^1, R^2, R^3, A and a have the the meanings indicated in Claim 1,

b) is reacted with a compound of the formula III



III

where, in the formula III, R^4 and b have the meanings indicated above and below for the in Claim 1,

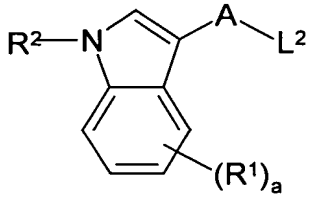
and optionally

c) a reduction step is optionally carried out and

d) the resultant compound of the formula I is optionally converted into one of its salts by treatment with an acid.

9) Process for the preparation of benzodioxepines of the formula 1 according to one of Claims 1 to 7 and physiologically tolerated salts and solvates thereof, characterised in that

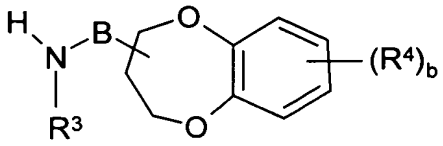
a) a compound of the formula IV



IV

in which L^2 denotes Cl, Br, I, OH, a reactively esterified OH group or a diazonium group and R^1, R^2, A and a have the meanings indicated in Claim 1,

b) is reacted with a compound of the formula V



V

in which R^3, R^4, B and b have the meanings indicated in Claim 1, and optionally

c) the resultant compound of the formula I is converted into one of its salts by treatment with an acid.

10) Compounds of the formula 1 according to one of Claims 1 to 7 and/or physiologically tolerated salts and solvates thereof as medicaments.

11) Use of the compounds of the formula 1 according to one of Claims 1 to 7 for the preparation of a medicament for the treatment and/or prophylaxis of various diseases, such as, for example, strokes, cerebral ischaemia and for reducing secondary damage caused by ischaemia, trauma, hypoglycaemia, schizophrenia, depression, dementia, dyskinesia, neurodegenerative diseases, such as Parkinson's disease, ALS, Alzheimer's disease, Lewy bodies dementia or Huntington's syndrome, Tourette's syndrome, anxiety, learning and memory impairment, sleeping disorders, inflammation-induced hyperalgesia, cerebral oedemas, under-supply states (hypoxia), inflammatory intestinal diseases and the associated disease symptoms, functional gastrointestinal diseases which are associated with pain and/or increased or reduced peristalsis, in particular irritable bowel syndrome, for the treatment and/or prophylaxis of non-ulcer-related dyspepsia, obstipation, in particular opiode-induced obstipation, arthritis, migraine, psoriasis or other irritative skin diseases, dysmenorrhoea, fibromylagia, pain states, in particular pain oversensitivity reactions occurring in back complaints, burn injuries, sunburn and rheumatic

diseases, postoperative pain and the ileus which frequently occurs after abdominal operations, diseases of the bladder, in particular of irritable bladder, cytalgia, cystalgia, neuralgia or bladder neurosis.

12) Process for the preparation of a pharmaceutical composition, characterised in that at least one compound of the formula I according to one of Claims 1 to 7 and/or one of its physiologically tolerated salts or solvates is brought into a suitable dosage form together with at least one solid, liquid or semi-solid excipient or adjuvant.

13) Pharmaceutical composition, characterised in that it comprises an effective content of at least one compound of the formula I according to one of Claims 1 to 7 and/or one of its physiologically tolerated salts or solvates.